

What is Claimed:

1 1. A cover for a rack to control the temperature of the contents of the rack
2 comprising:

3 a frame having a temperature-controlling element, said frame adapted to be
4 disposed above a rack;

5 a soft hood having a bottom, said hood extending downward from said frame; and
6 a duct fluidly connecting said temperature-controlling element to the bottom of
7 said hood.

1 2. The cover of claim 1 wherein said temperature-controlling element is a
2 heater.

1 3. The cover of claim 1 wherein said temperature-controlling element is a
2 refrigeration device.

1 4. The cover of claim 1 further comprising a blower in said frame.

1 5. The cover of claim 1 wherein said frame has four sides and said hood has
2 four sides, and each said hood side attaches to a respective frame side.

1 6. The cover of claim 1 wherein said frame is adapted to be attached to a
2 wall or suspended from a ceiling.

1 7. The cover of claim 1 wherein said frame is adapted to be disposed on top
2 of a laboratory bottle rack.

1 8. The cover of claim 1 wherein said hood has an openable front panel to
2 allow insertion and removal of a rack.

1 9. The cover of claim 1 wherein said hood is comprised of a multi-layered
2 material.

1 10. The cover of claim 9 wherein said hood is three-layered and one of the
2 three layers is a thermal insulation.

1 11. The cover of claim 1 wherein said hood is one piece.

- 1 12. The cover of claim 1 comprising two ducts.
- 1 13. The cover of claim 1 wherein said duct is disposed outside of said hood.
- 1 14. A method of controlling the temperature of a reaction comprising the steps of:
 - 2 (a) suspending a flexible hood from a frame to form an enclosed area below the
 - 3 frame;
 - 4 (b) inserting a reaction vessel into the enclosed area;
 - 5 (c) bringing air within the frame to a first desired temperature;
 - 6 (d) passing the air from the frame to the bottom of the hood and into the
 - 7 enclosed area;
 - 8 (e) taking up the air from the enclosed area at the top of the hood and bringing
 - 9 it back to said first temperature in the frame; and
 - 10 (f) repeating steps (d) and (e) until a desired reaction is complete.
- 1 15. The method of step 14 wherein step (c) comprises warming air within the frame.